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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,852	04/30/2001	Robert G. Gann	10012822-1	3197

7590 12/20/2002
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EXAMINER

SOHN, SEUNG C

ART UNIT PAPER NUMBER

2878

DATE MAILED: 12/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/845,852

Applicant(s)

GANN, ROBERT G.

Examiner

Seung C. Sohn

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 6-9 and 15-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4&Z</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Election/Restrictions

1. **Claims 6-9 and 15-18** are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species II (Fig. 4), there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6 dated on December 6, 2002.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the processor must be shown or the feature(s) canceled from the claims 1-5 and 10-14. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. ***Claims 1 and 10 are rejected under 35 U.S.C. 112, second paragraph***, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). The term "line" in claims 1 and 10 is used by the claim to mean "streak," while the accepted meaning is "something that is distinct, elongated, and narrow". Also, image data can have lots of lines since images are essentially composed of lines, which are again composed of lots of dots.

6. ***Claim 1 is rejected under 35 U.S.C. 112, second paragraph***, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted step is detecting a defect using lines and calibration gains.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an

application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. *Claims 1-5 and 10-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Hill et al. (Patent Application Pub. No. US 2002/0122213).*

Referring to claim 1, Hill et al. discloses the following steps of Applicant's claim:

a) determining whether lines are present in image data for multiple color channels (Page 2, Paragraph 0021); and

b) determining whether calibration gains for photosensors corresponding to the lines are normal (Page 2, Paragraph 0022).

Referring to claim 2, Hill et al. discloses the following steps of Applicant's claim:

a) determining that a gain associated with a particular photosensor, in a particular line-array of photosensors, in a photosensor assembly, exceeds a predetermined gain threshold, the gain having been calibrated using the calibration target (Page 3, Paragraph 0023);

b) determining that an image intensity measurement for the particular photosensor exceeds a predetermined intensity threshold (Page 3, Paragraph 0023); and

c) determining that an image intensity measurement for each photosensor, physically corresponding to the particular photosensor, in all line-arrays in the photosensor assembly other than the particular line-array of photosensors, does not exceed the predetermined intensity threshold (Page 3, Paragraph 0024).

Referring to claim 3, Hill et al. discloses the following steps of Applicant's claim:

a) determining that intensity data, from a particular photosensor, in a particular line-array of photosensors, in a photosensor assembly, is less than a predetermined intensity threshold (Page 3, Paragraph 0023); and

b) determining that intensity data, for each photosensor, physically corresponding to the particular photosensor, in all line-arrays in the photosensor assembly other than the particular line-array of photosensors, is not less than the predetermined intensity threshold (Page 3, Paragraph 0024).

Referring to claim 4, Hill et al. discloses the step of determining that the defect was present during calibration, by determining that a gain for the particular photosensor, determined during calibration, exceeds a predetermined gain threshold (Page 3, Paragraph 0026).

Referring to claim 5, Hill et al. discloses the step of determining that the defect was not present during calibration, by determining that a gain for the particular photosensor, determined during calibration, does not exceed a predetermined gain threshold. (Page 3, Paragraph 0025).

Referring to claim 10, Hill et al. shows in Fig. 1 the following elements of Applicant's claim:

a) a first line-array of photosensors (22, i.e., CIS module) (Page 2, Paragraph 0017);

b) a second line-array of photosensors (Page 2, Paragraph 0018); and

c) a processor (24, i.e., processing circuit) determining that a defect exists when lines are present in image data from only one of the first and second line-

arrays of photosensors and when calibration gains, associated with photosensors corresponding to the lines, are normal. (Page 3, Paragraph 0023).

Referring to claim 11, Hill et al. shows I Fig. 1 the following elements of

Applicant's claim:

- a) a calibration target;
- b) a photosensor assembly (22, i.e., CIS module) comprising a plurality of line-arrays of photosensors;
- c) a particular photosensor, in a particular line-array of photosensors, in the photosensor assembly, having an associated gain that exceeds a predetermined gain threshold, the gain having been calibrated using the calibration target (Page 3, Paragraph 0023);
- d) the particular photosensor having an associated image intensity measurement that exceeds a predetermined intensity threshold (Page 3, Paragraph 0026); and
- e) the processor determining that a defect exists when an image intensity measurement for each photosensor physically corresponding to the particular photosensor, in all line-arrays in the photosensor assembly other than the particular line-array of photosensors, does not exceed the predetermined intensity threshold (Page 2, Paragraph 0027).

Referring to claim 12, Hill et al. shows in Fig. 1 the following elements of

Applicant's claim:

a) a photosensor assembly (22, i.e., CIS module) comprising a plurality of line-arrays of photosensors;

b) a processor (24, i.e., processing circuit);

c) a particular photosensor, in a particular line-array of photosensors, in a photosensor assembly, having an associated image intensity measurement that is less than a predetermined intensity threshold (Page 3, Paragraph 0023); and

d) the processor (24) determining that a defect exists when an intensity output, for each photosensor physically corresponding to the particular photosensor, in all line-arrays in the photosensor assembly other than the particular line-array of photosensors, is not less than the predetermined intensity threshold (Page 3, Paragraph 0026).

Referring to claim 13, Hill et al. shows the processor (24) determining that the defect was present during calibration, by determining that a gain associated with the particular photosensor, determined during calibration, exceeds a predetermined gain threshold (Page 3, Paragraph 0024).

Referring to claim 14, Hill et al. shows the processor (24) determining that the defect was not present during calibration, by determining that a gain associated with the particular photosensor, determined during calibration, does not exceed a predetermined gain threshold (Page 3, Paragraph 0026).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Childs (Patent No. US 4,680,638) discloses a concealment of defects in a video signal.

Foley (Patent No. US 5,526,040) discloses a signal processing apparatus for a photographic film scanner.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seung C. Sohn whose telephone number is (703) 308-4093. The examiner can normally be reached on Monday through Friday from 8:30 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

SCS

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December 15, 2002


Kevin Pyo
Primary Examiner